

FUEL & FUEL FILTERS

HAZARDS & RULES

Base Materials - Hazards & Impacts

There are no hazards and/or impacts associated with the base materials found in fuel filters.

Gasoline includes a mixture of several hydrocarbons, such as benzene, toluene, ethyl benzene, xylenes as well as performance enhancement additives. Many of these hydrocarbons are known carcinogens. Breathing gasoline vapors can cause convulsion, nausea, and loss of consciousness.

Prolonged exposure to vapors has been known to cause kidney, liver, and blood disorders including anemia and leukemia. Gasoline is also a skin and eye irritant.

Diesel fuel is also a mixture of several hydrocarbons which include xylenes, but in smaller concentrations than in gasoline. Diesel fuel consists chiefly of the paraffinic hydrocarbons and naphthenes. Breathing the vapors can cause coughing, shortness of breath, nausea, and loss of consciousness. Repeated or prolonged skin contact can cause dermatitis or aggravate it.

The most acute hazard associated with gasoline and diesel fuel is flammability. Gasoline can be ignited by static electricity, which occurs naturally in the atmosphere. Vapors are heavier than air and can travel long distances along the ground. When vapors are ignited, the fire can quickly flash back to the origin of the vapors.

Additives and Contaminants - Hazards & Impacts

Used fuel filters may contain residual gasoline or diesel fuel. Gasoline contains a variety of additives that are used to improve engine performance, reduce tail pipe emissions, reduce engine deposits and spark-plug fouling, and to reduce losses during handling. Request a copy of a material safety data sheet (MSDS) from your supplier.

Regulatory Overview

Gasoline, diesel fuel, fuel filters, and used wipes and sorbents that are contaminated with gasoline or diesel may be subject to IDEM, OSHA, and the Department of Fire & Building Services' requirements. IDEM allows you to mix gasoline and/or diesel with your used oil if you follow the Used Oil Rule (see the *Oil* section in Chapter 4.) Mixing fuel with your used oil, however, will lower the flash point of your used oil and may require that you follow more stringent Fire & Building Services' and DOT regulations than otherwise required.

MANAGEMENT RESPONSIBILITIES

Listed below are the management responsibilities that you must follow. Also listed are suggested practices that you should follow in order to ease your regulatory requirements.

You Must:

- manage your waste fuel in one of the following manners:
 - reuse the fuel if it is not contaminated.
 - send to a re-refiner or fuel blender.
 - manage under the Used Oil Rule. See the *Oil* section in Chapter 4 for storage and management requirements. Check with your vendor prior to mixing de minimus quantities of gasoline to your used oil to ensure that your vendor allows this.
 - make a hazardous waste determination and manage accordingly.
- if you do not mix fuel with your used oil, store gasoline in an OSHA-approved fire-resistant safety container with a flash screen and a self-closing lid. [OSHA] You must also store the fuel in a fire cabinet or flammable liquid storage area. [Fire & Building Services]
- make a hazardous waste determination on fuel filters that contain gasoline, or drain or evaporate the residual fuel from the filter and then recycle or dispose the fuel filter.
- when transporting gasoline, label the shipment as follows: [DOT]
"Gasoline, 3, UN1203, PGII, Flammable Liquid"
- not use gasoline to clean yourself or for any other cleaning purposes. [OSHA & Fire & Building Services]

You Should:

- disassemble the fuel filter prior to recycling to separate the metal/plastic from the filter media. Some recyclers may do this job for you. The metal components can be recycled.
- return any usable fuel that is collected (i.e., from tanks, filters, fuel lines, etc.) to the vehicle's fuel tank or use in another engine such as your shop's lawn mower.
- conduct a hazardous waste determination on separated filter media intended for disposal.